**AMENDMENTS TO THE CLAIMS:** This listing of claims replaces all prior versions and listings of claims in the instant patent application.

## Listing of claims:

- 1. (currently amended) A method of detecting Graves' disease in a patient comprising
  - (a) obtaining an orbital or skin sample comprising fibroblasts from the patient, and
  - (b) contacting said fibroblasts with disease specific IgG from the same patient, and
- (b c) detecting in said an orbital or skin sample the activation of fibroblasts by binding of disease specific IgG to the IGF-1 receptor (IGF-1R) relative to a control wherein said binding of disease specific IgG to the IGF-1 receptor (IGF-1R) activates fibroblasts, wherein an increased presence of IgG-activated fibroblasts compared to the control indicates Graves' disease, and wherein fibroblast activation is determined by measuring the level of IL-16 expressed by said IgG-activated fibroblasts, RANTES expressed by said IgG-activated fibroblasts or by measuring T cell migration towards said fibroblasts in said orbital or skin sample.
  - 2. (cancelled)
- 3. (previously presented) The method of claim 1, wherein an elevated level of the marker compared to the control indicates presence of said IgG-activated fibroblasts.
  - 4.-5. (cancelled)
- 6. (previously presented) The method of claim 1 wherein the detecting is accomplished by exposing T-cells to said orbital or skin sample comprising said fibroblasts and measuring T-cell migration toward said fibroblasts, wherein an increase in the migration of said fibroblasts relative to the control indicates presence of said IgG-activated fibroblasts.
  - 7. (previously presented) The method of claim 1 wherein the patient is human.
  - 8.-11. (cancelled)